

FIG. 1A

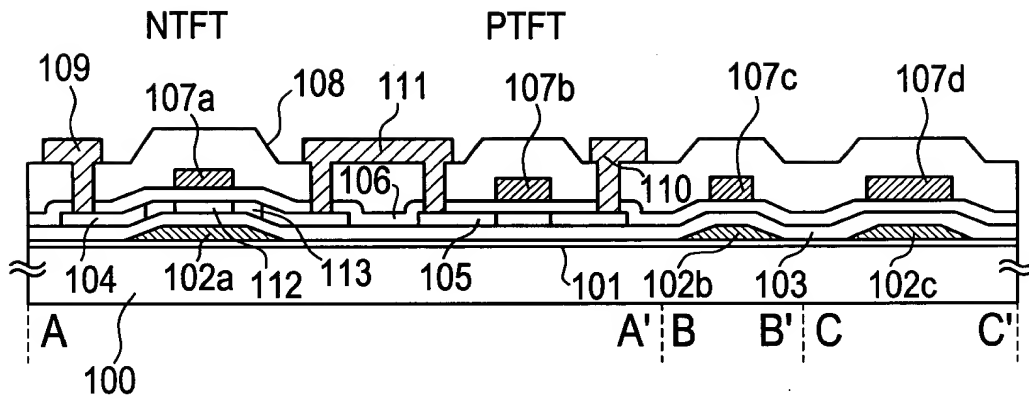


FIG. 1B

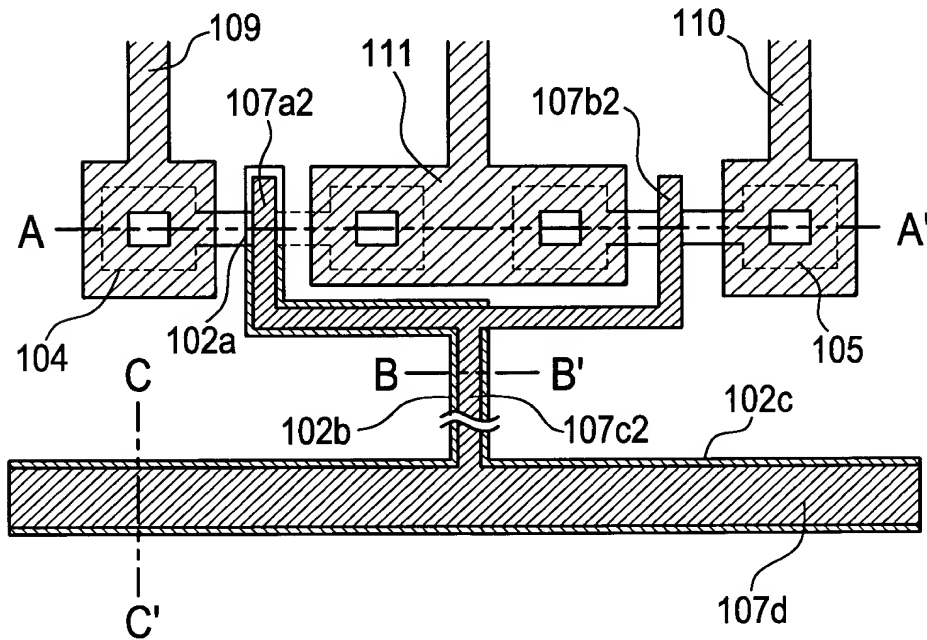


FIG. 2A

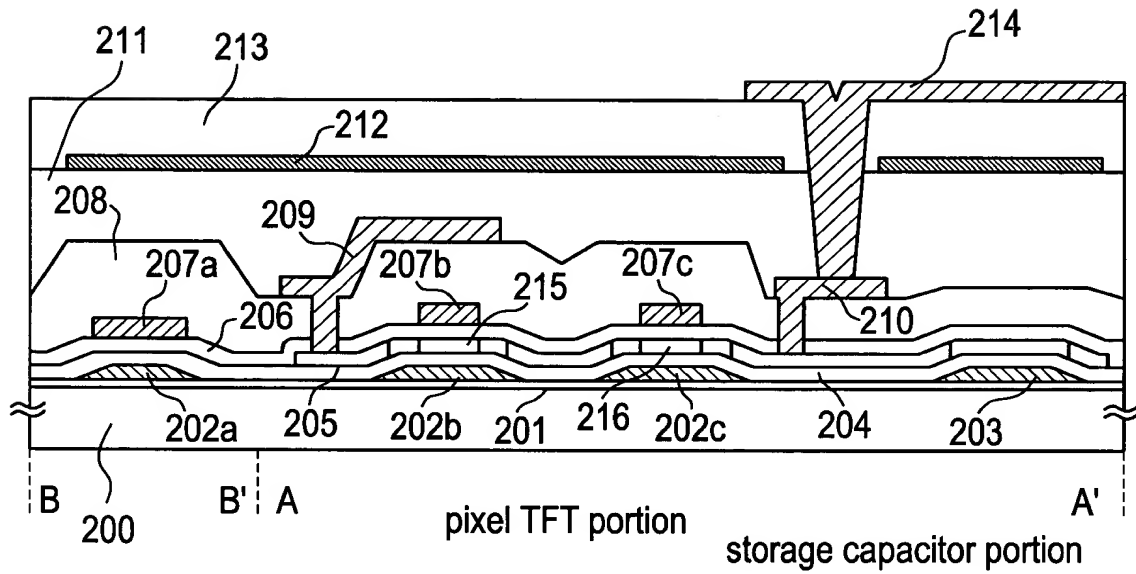


FIG. 2B

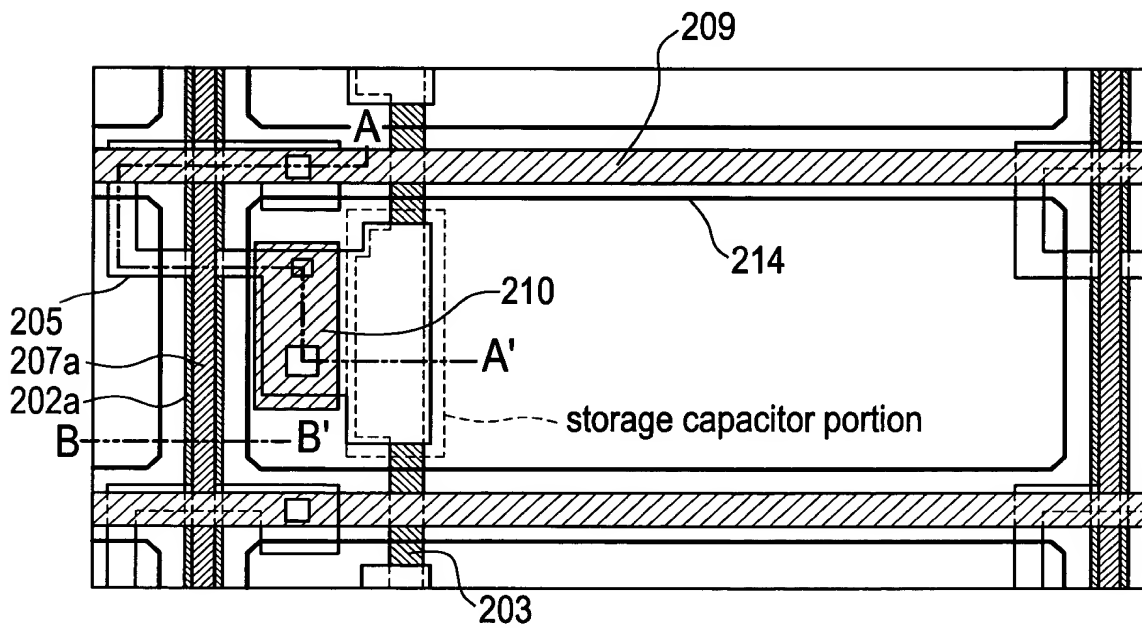


FIG. 3A

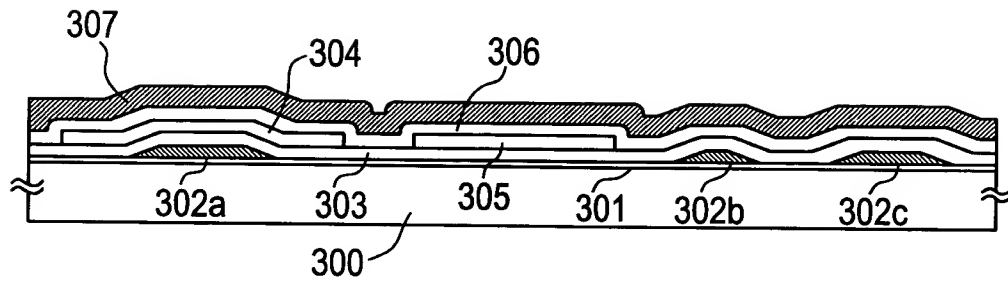


FIG. 3B

phosphorus doping step

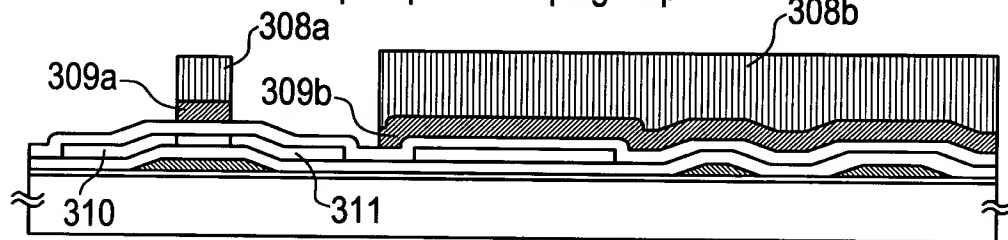


FIG. 3C

boron doping step

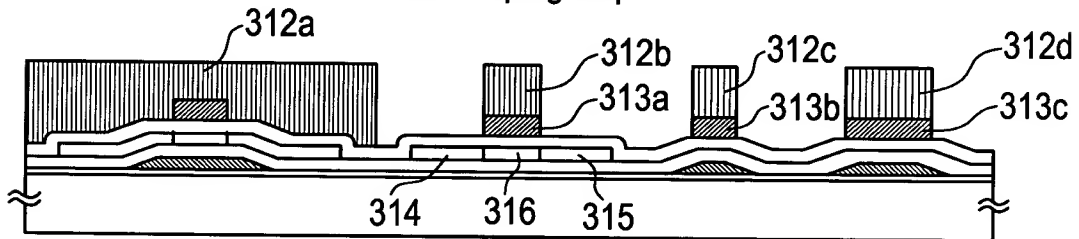


FIG. 3D

back side exposure step phosphorus doping step

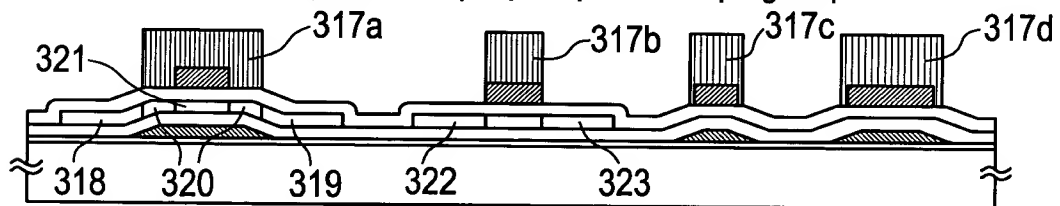


FIG. 3E

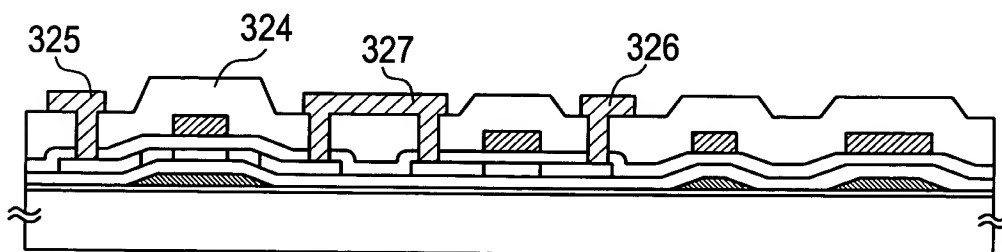
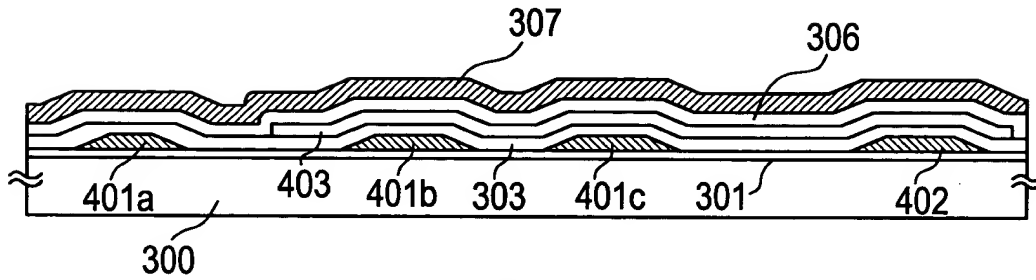
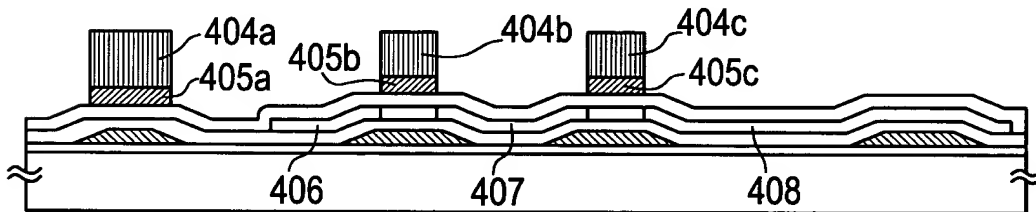
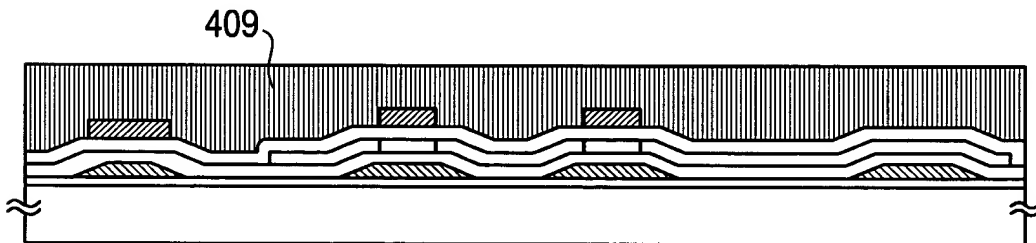


FIG. 4A**FIG. 4B**

phosphorus doping step

**FIG. 4C**

boron doping step

**FIG. 4D**

back side exposure step

phosphorus doping step

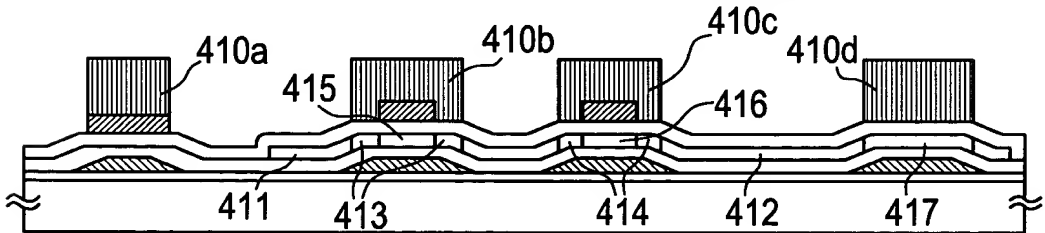
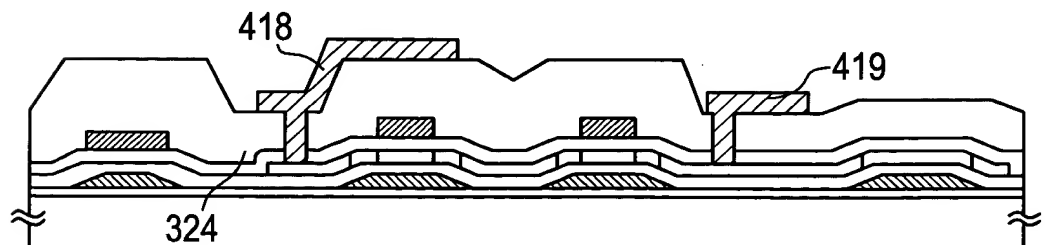
**FIG. 4E**

FIG. 5A

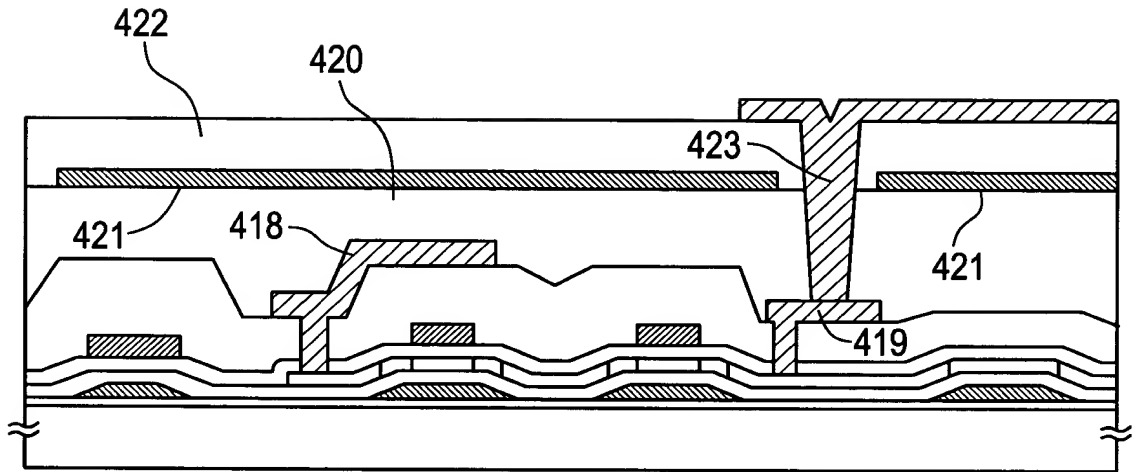


FIG. 5B

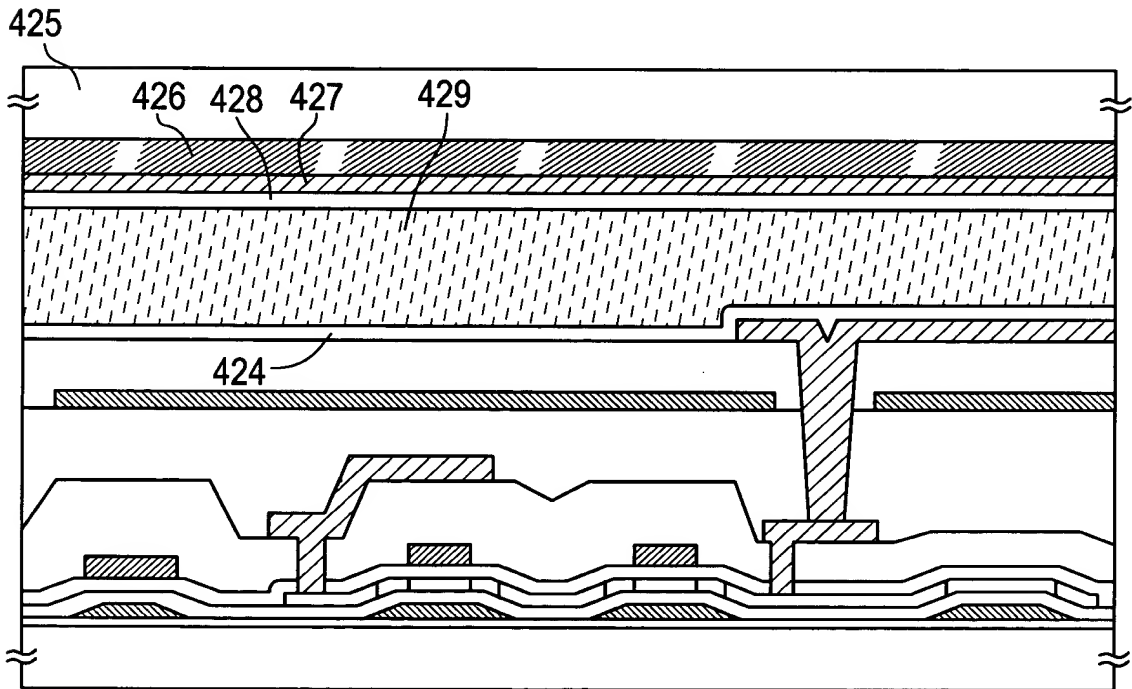


FIG. 6

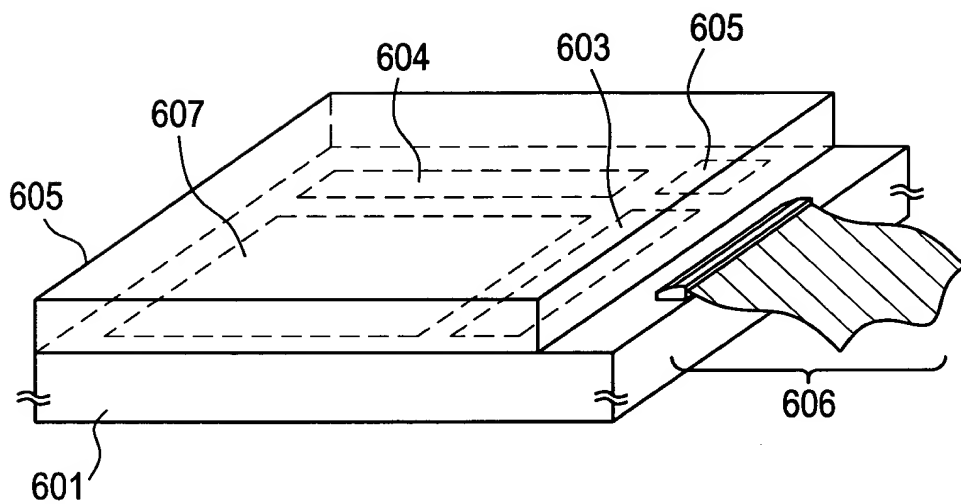


FIG. 7

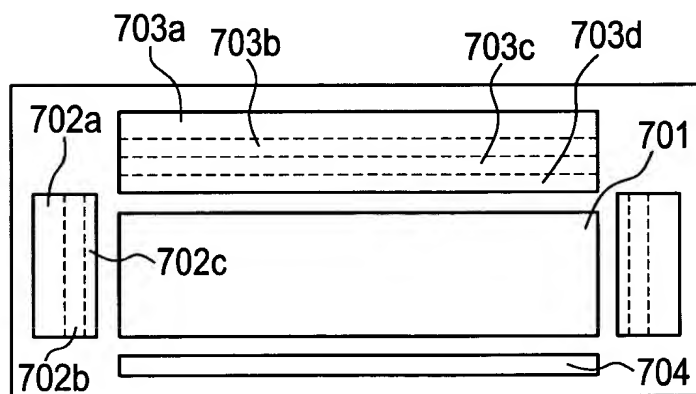


FIG. 8A

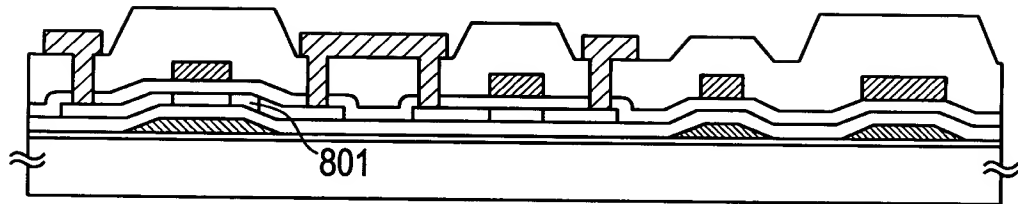


FIG. 8B

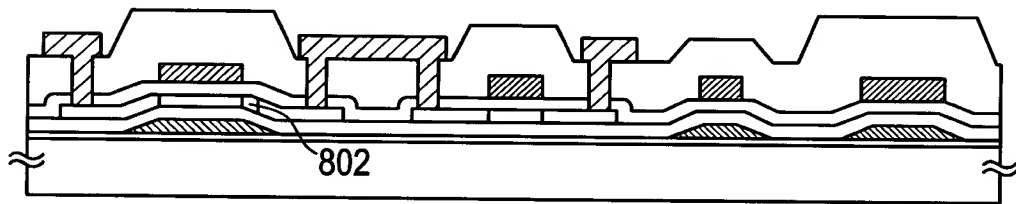


FIG. 8C

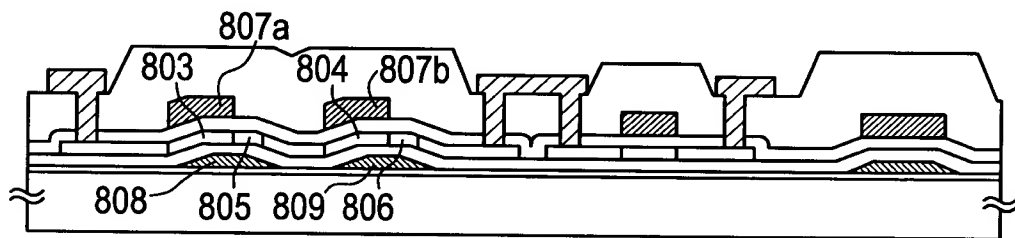


FIG. 8D

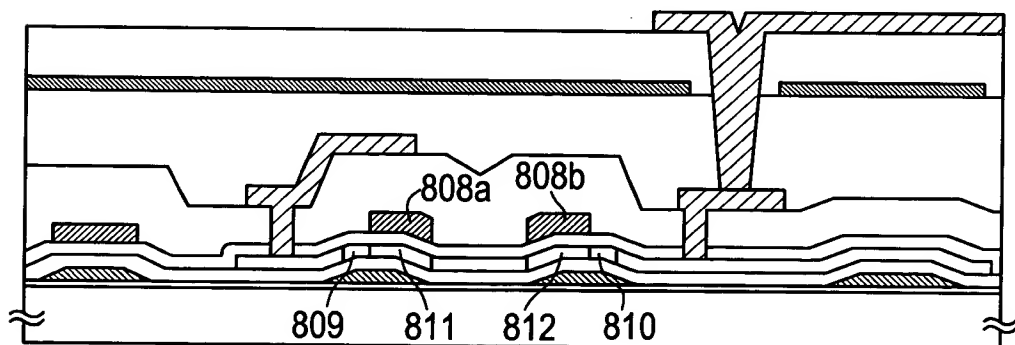


FIG. 9A

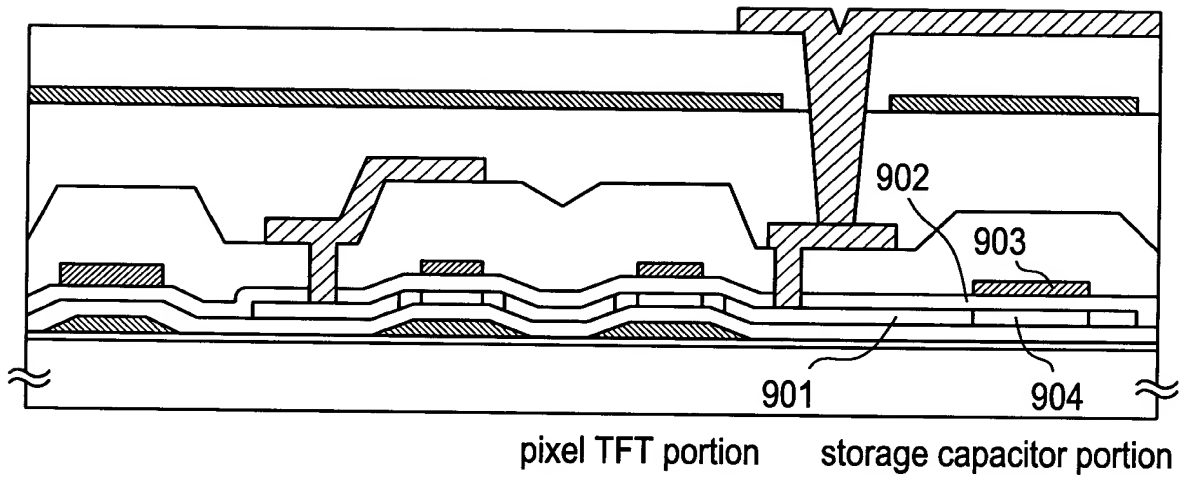


FIG. 9B

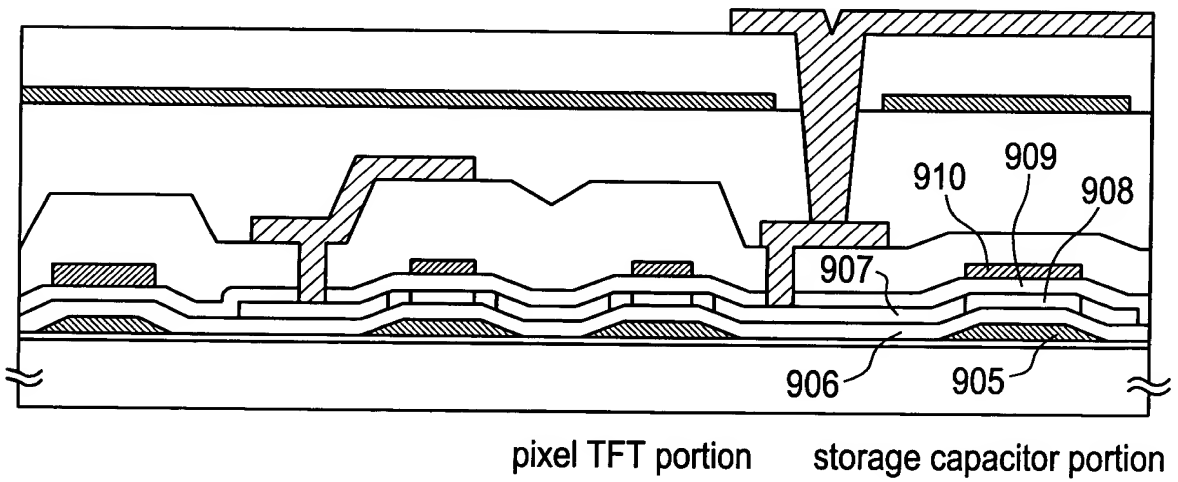


FIG. 10A

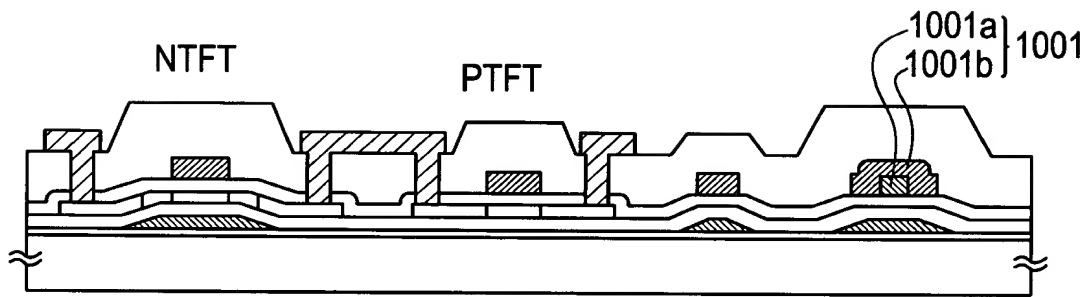
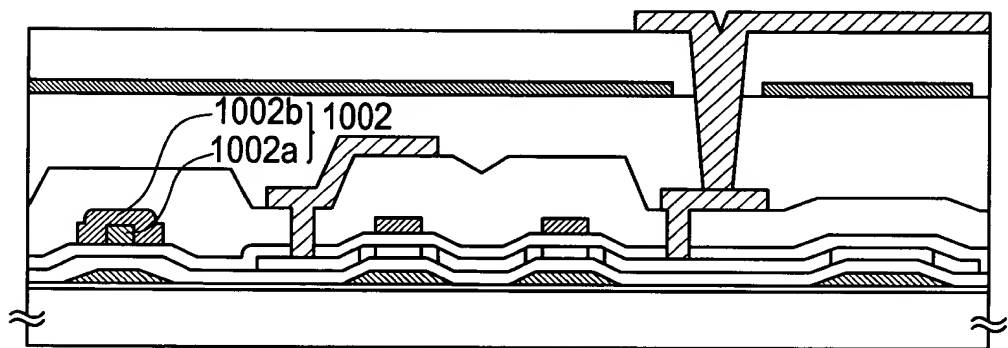


FIG. 10B



pixel TFT portion storage capacitor portion

FIG. 11A

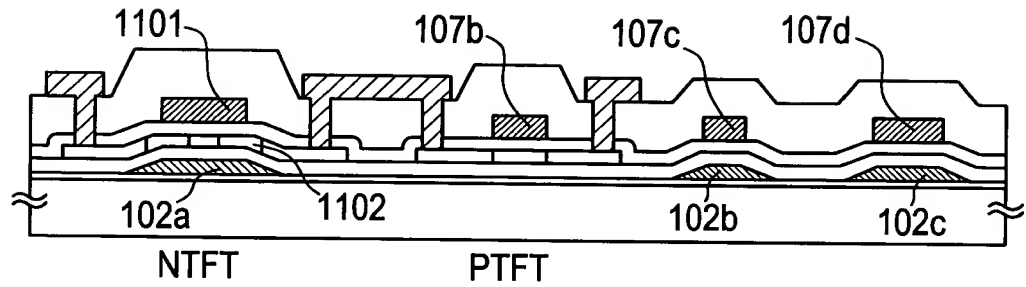


FIG. 11B

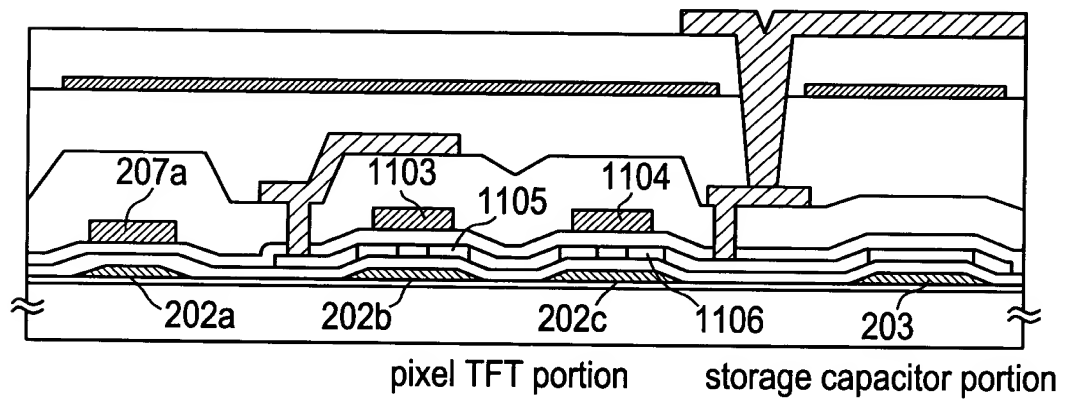


FIG. 12

gettering step by phosphorus

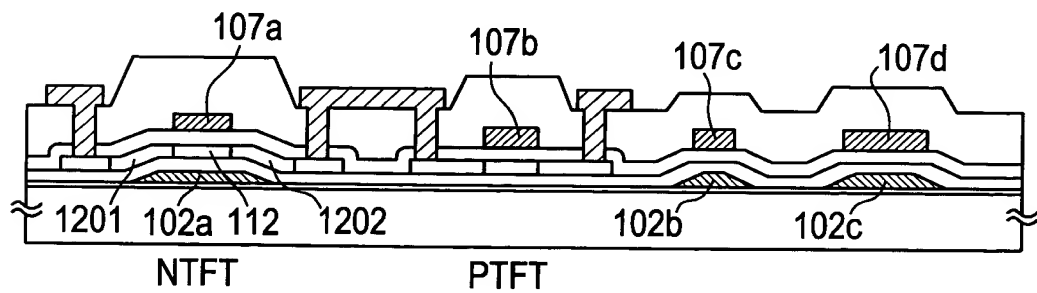


FIG. 13A

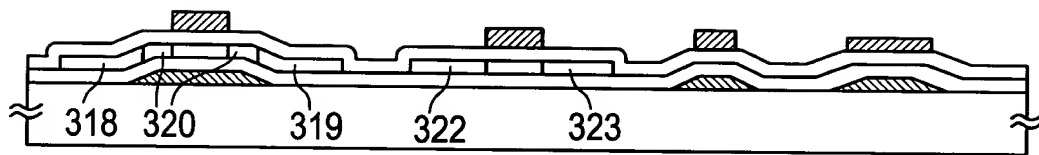


FIG. 13B

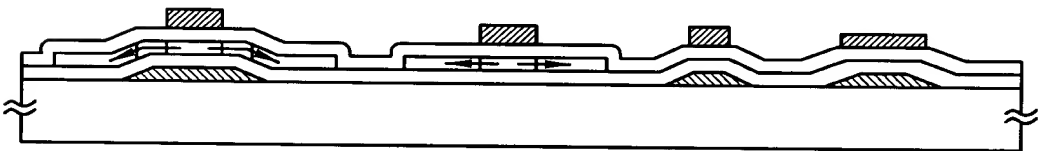


FIG. 14A

Phosphorus doping step (n^-)

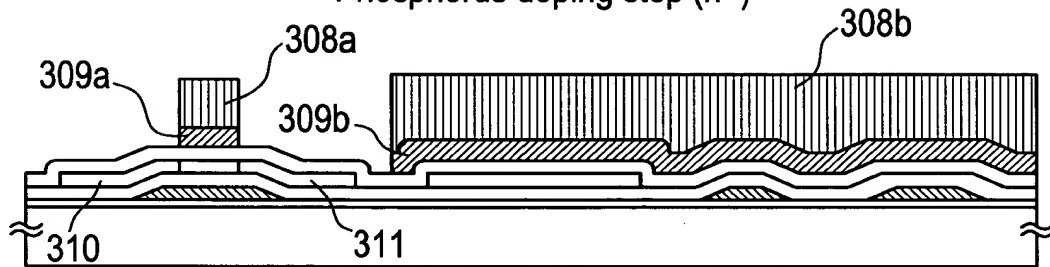


FIG. 14B

Backside exposure step, phosphorus doping step (n^-)

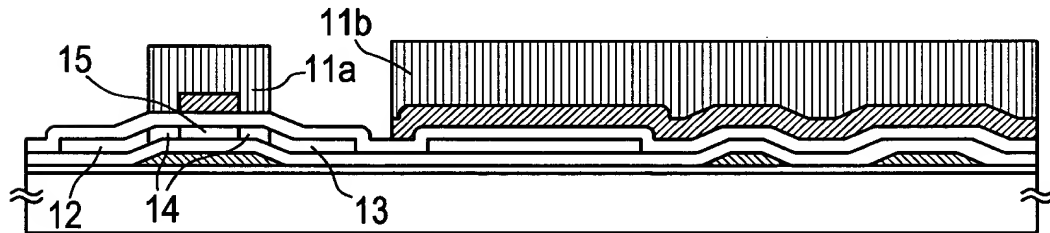


FIG. 14C

Boron doping step (p^{++})

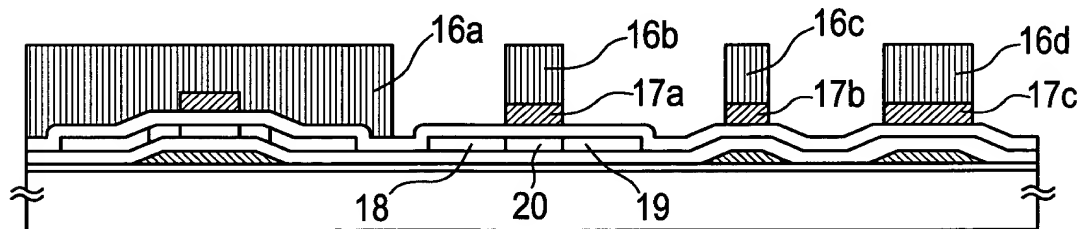
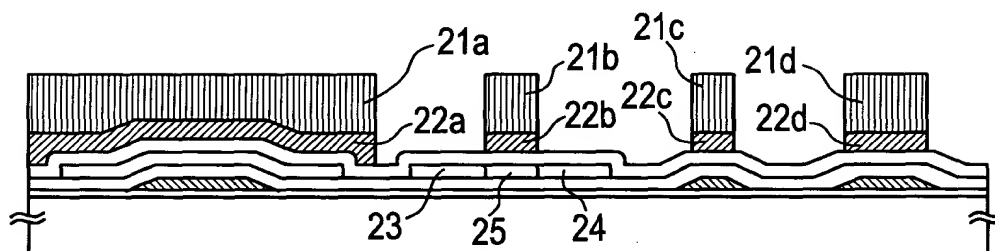
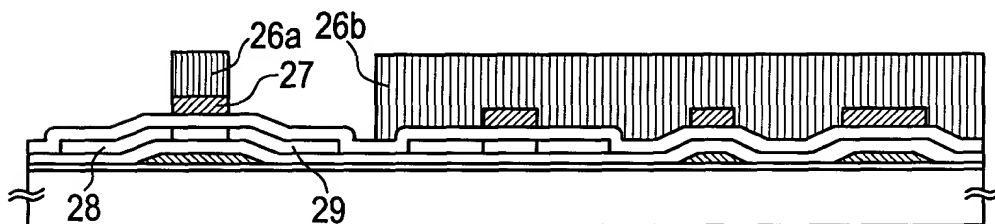
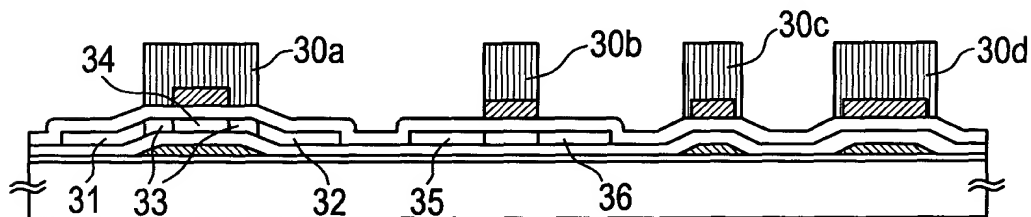
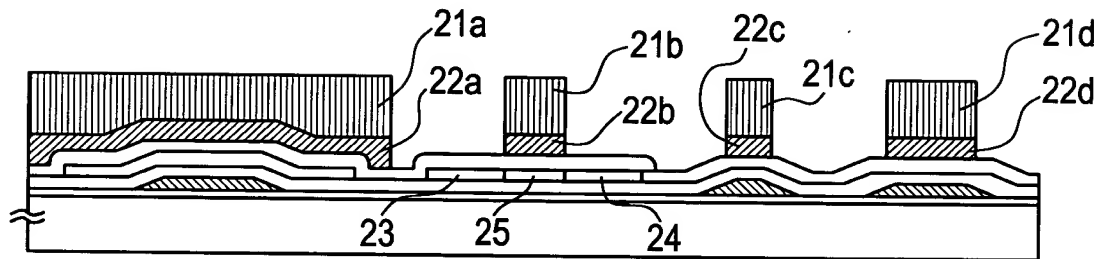
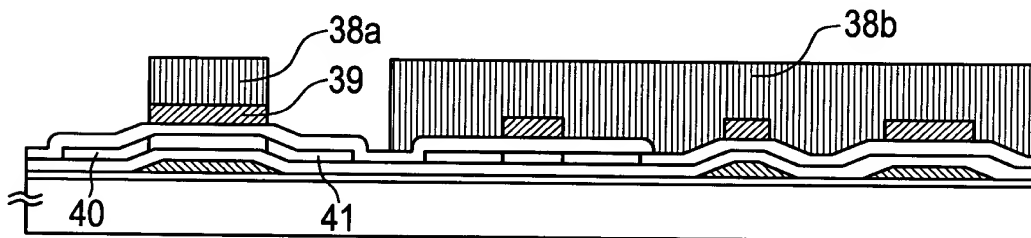


FIG. 15ABoron doping step (p^{++})**FIG. 15B**Phosphorus doping step (n^-)**FIG. 15C**Backside exposure step, phosphorus doping step (n^+)

Boron doping step (p⁺⁺)



Phosphorus doping step (n⁺⁺)



Phosphorus doping step (n⁻)

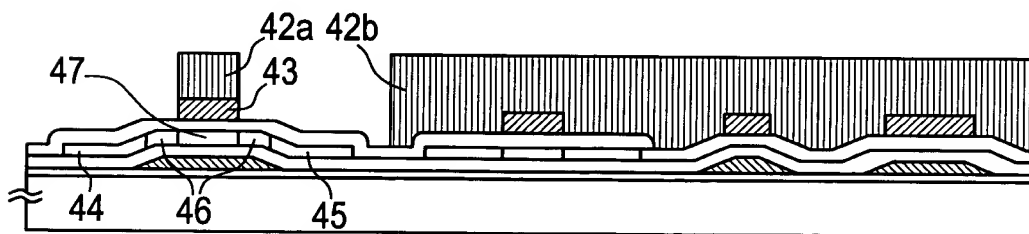


FIG. 17A

Phosphorus doping step (n^+)

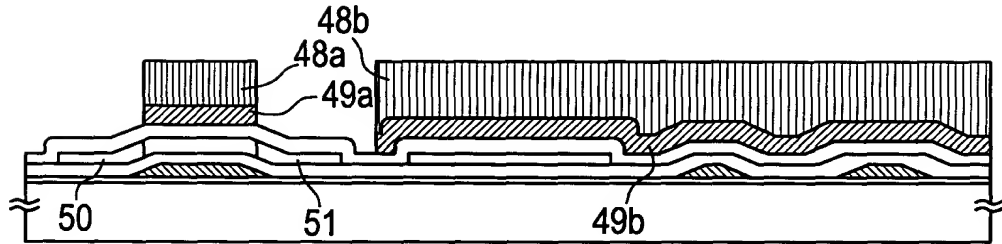


FIG. 17B

Phosphorus doping step (n^-)

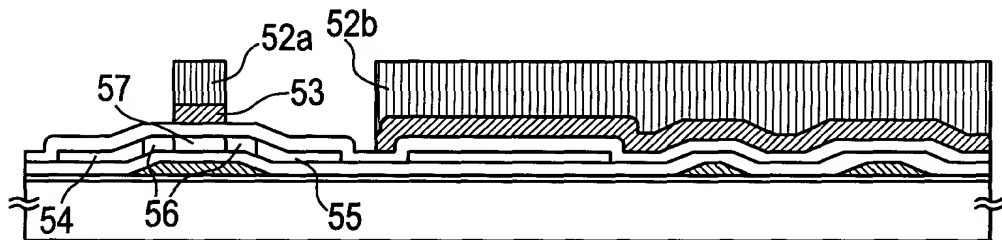


FIG. 17C

Boron doping step (n^{++})

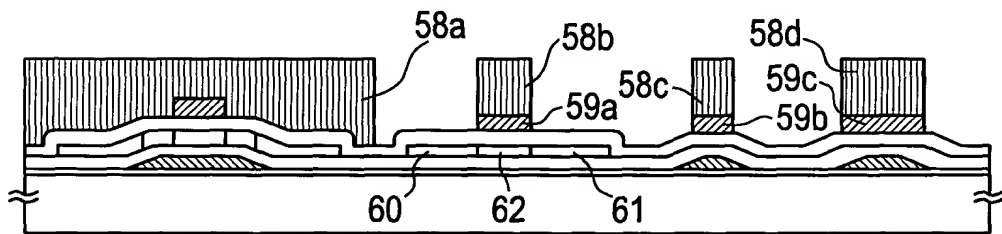


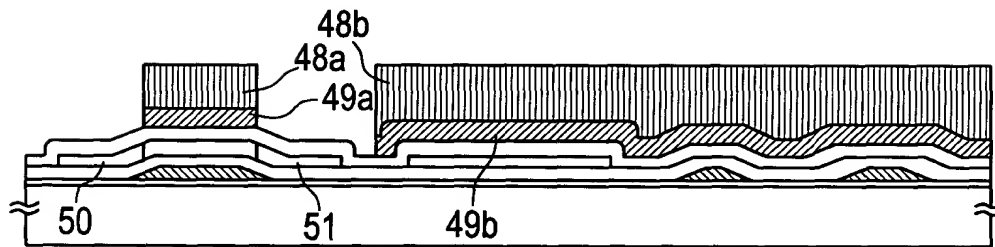
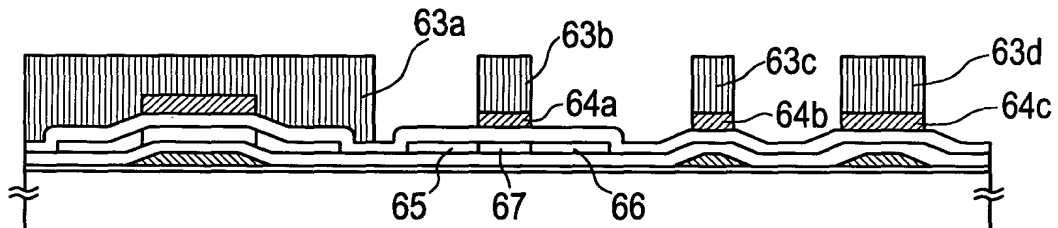
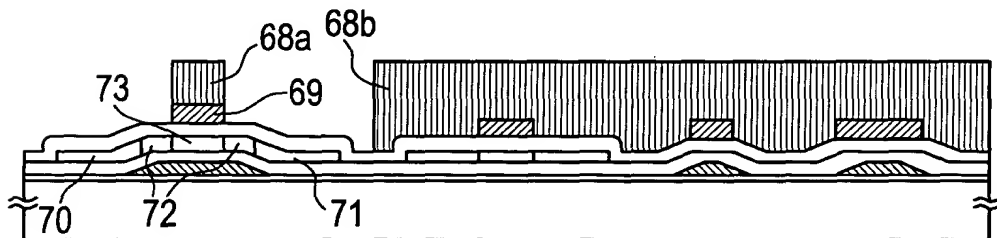
FIG. 18APhosphorus doping step (n^+)**FIG. 18B**Boron doping step (p^{++})**FIG. 18C**Phosphorus doping step (n^-)

FIG. 19A

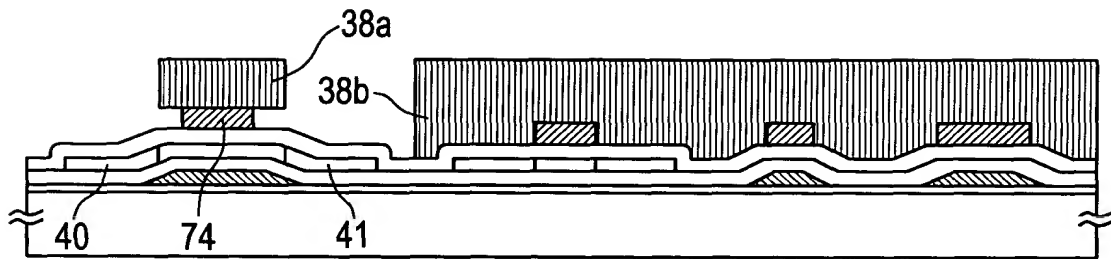


FIG. 19B

Phosphorus doping step (n^-)

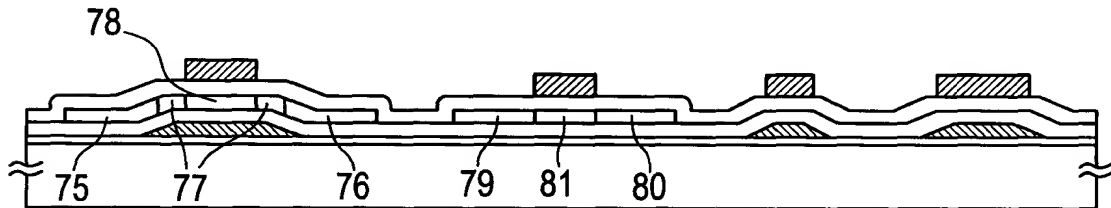


FIG. 20A

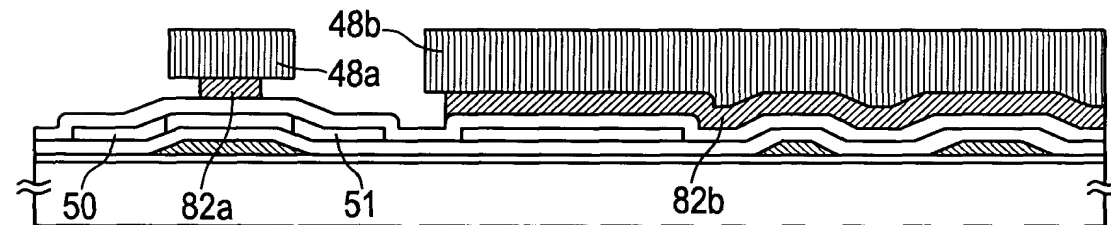


FIG. 20B

Phosphorus doping step (n^-)

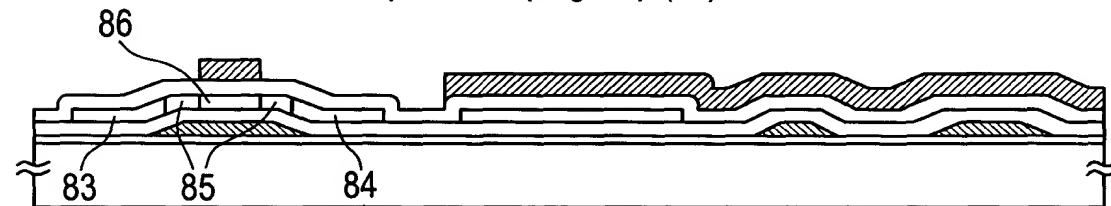


FIG. 21A

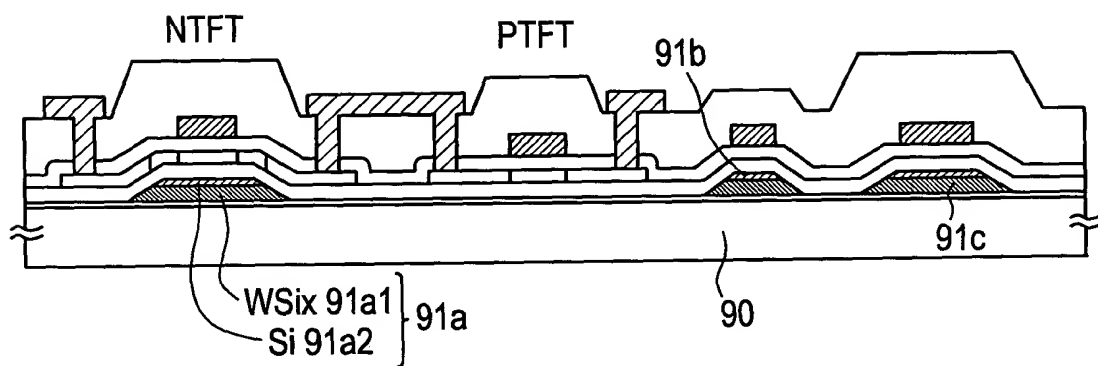


FIG. 21B

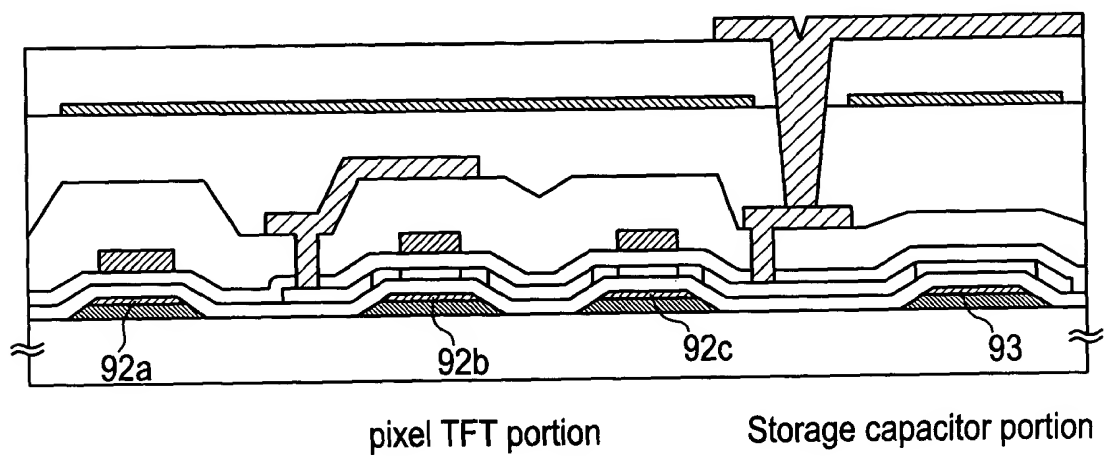


FIG. 22A

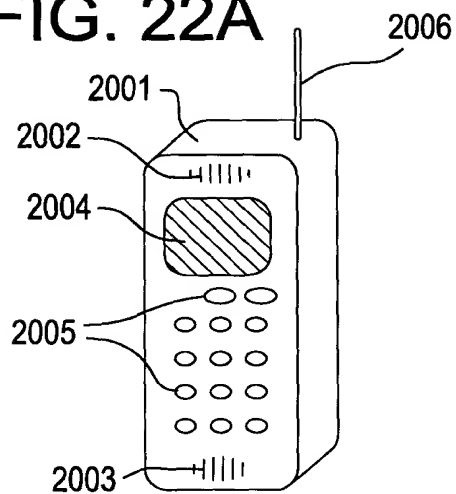


FIG. 22B

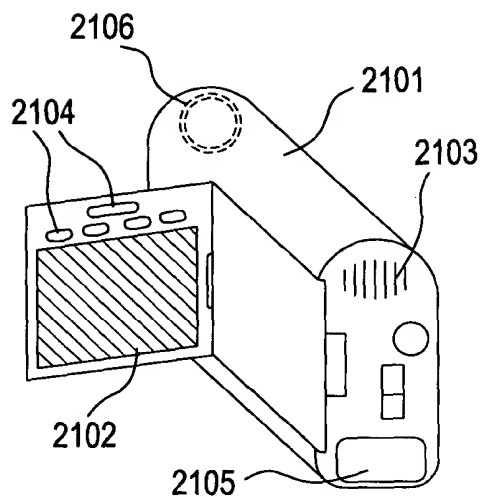


FIG. 22C

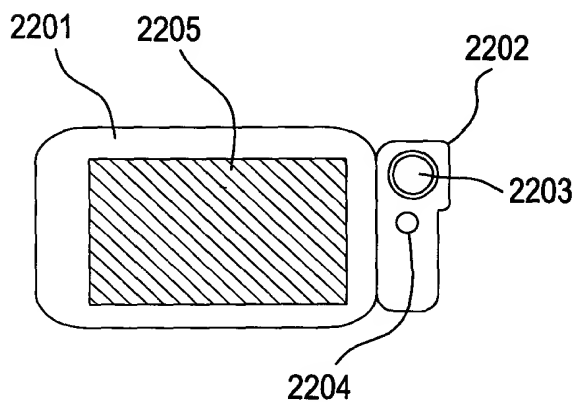


FIG. 22D

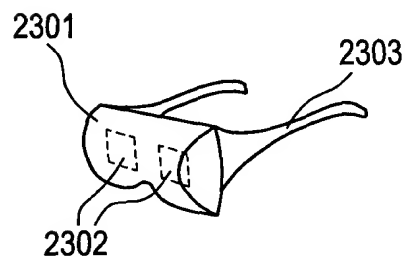


FIG. 22E

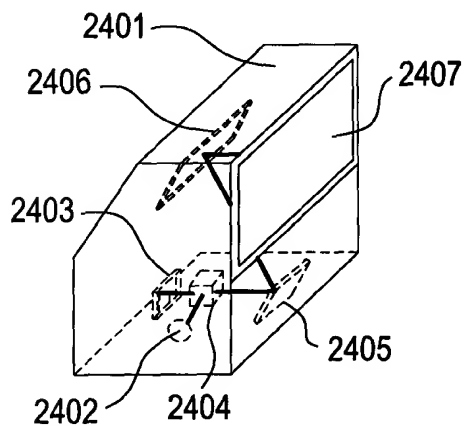


FIG. 22F

